

Clean Intermittent Catheterization

Background

Certain diseases or injuries, including spina bifida, spinal cord injury, or other urinary tract conditions, can make it difficult to control urination. When the nerves that control the bladder are affected, a person may not be able to tell when their bladder is full or may be unable to empty it completely. Bladder management focuses on using alternative methods to help ensure the bladder empties safely and effectively.

Clean intermittent catheterization (CIC) is often the initial nonsurgical intervention used to manage bladder elimination. A catheter is inserted through the urethra into the bladder as ordered by the licensed healthcare provider, at least every three to six hours. Various brands, types, and systems of catheters are available for CIC. Routine and consistent CIC is important in preventing infection, leakage, and potentially serious kidney damage. Bladder medications may also be prescribed to decrease urinary leakage between catheterizations.

In some individuals, the bladder is not large enough to hold the urine made by the kidneys, causing urine to leak. The bladder can also lose its ability to stretch, causing increased bladder pressure that pushes urine back into the kidneys. To prevent incontinence, urinary tract infections, or kidney damage related to these conditions, surgical alternatives may be necessary to facilitate urinary elimination.

Several types of bladder surgeries can be used to create urinary diversion and facilitate urinary output. Bladder augmentation enlarges the bladder, making it more elastic, to decrease pressure. Another surgical alternative, a urostomy, is a permanent procedure that creates a new pathway for elimination when there is a bladder dysfunction, or the bladder has been removed. Urostomies can be continent (Mitrofanoff) that allow for intermittent catheterization or incontinent (vesicostomy) that require the use of a pouch or diaper.

All urinary diversion stomas and the surrounding skin should be assessed and cleaned daily to help prevent skin breakdown and infection. Signs of infection may include pain, fever, or changes in the appearance of the stoma. While a small amount of redness is expected for a period following surgery, persistent or newly developed redness, swelling, or leakage should be reported and evaluated for treatment. At all times, staff should be familiar with the specific catheter or pouch system ordered, including the brand, type, and procedure outlined in the student's health care plan.



Top Takeaways for School

The goal of all bladder management strategies is to keep the bladder and kidneys healthy and free from infection.

Clean intermittent catheterization (CIC) is often the initial nonsurgical intervention used to manage bladder output. Bladder surgeries can also create alternative methods for urine output.

School staff should work together to consider the student's ability to access the bathroom and storage/access of additional supplies (e.g., catheter, wipes). Depending on the type of bladder surgery, the student could require additional adult support to empty their bladder.

Consider student's academic schedule when coordinating CIC times with the healthcare provider orders. Attempts to avoid academic time while maintaining the frequency of CIC (e.g., every 3 hours) is important.

Encourage student's participation consistent with their physical and developmental abilities. This could include recalling steps of procedure, assisting with gathering supplies, or performing the skill independently.

Considerations for the Individualized Healthcare Plan (IHP)

- Nursing diagnoses: Impaired urinary elimination and risk for infection
- Allergies or food restrictions
- Elimination interventions and equipment (consider catheterization brand/system, French size, frequency, and cleaning techniques; location of procedure; level of assistance)
- Skin check, pressure relief techniques
- Activity, positioning, transferring (consider precautions and/or restrictions)
- Equipment troubleshooting (consider equipment/device user manual, battery, charger)

Discussion Starters for the Educational Team

1. Would the student benefit from evaluations or assessments in any of the following areas: physical therapy, occupational therapy, speech and language therapy, assistive technology, adapted physical education, functional behavior, psychology, hearing and vision?
2. Would the student benefit from additional academic support and/or modified education (e.g., copies of notes, extra time, reduced workload, simplified instructions, alternative formats for presentation of material, 504/IEP)?
3. Would schedule flexibility support the student?
4. Does the student require activity precautions to prevent injury?
5. Does the classroom environment support the student's needs and/or equipment (e.g., flash pass for bathroom or nurse)?
6. Will staff receive education/training to implement the student-specific emergency plan?

Resources

Kennedy Krieger Institute: Center for Spina Bifida and Related Conditions
kennedykrieger.org/patient-care/centers-and-programs/center-for-spina-bifida-and-related-conditions

ACS American College of Surgeons-Home Skills for Patients
facs.org/for-patients/home-skills-for-patients/ostomy/pediatric-urostomy/#videos

United Ostomy Associations of Americas Inc.
ostomy.org/urostomy/



For more information, please scan the QR code or visit: KennedyKrieger.org/SHNIC

